## WHAT IS CLAIMED IS:

1. An aminothiol compounds and their acylated derivatives thereof, having general formula I and formula II, respectively,

wherein R<sup>1</sup>-R<sup>6</sup> are substitutable ligands.

- 2. The aminothiol compounds and acylated derivatives thereof as claimed in claim-1, wherein R<sup>1</sup> is aryl.
- 3. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, wherein  $R^1$  is alkyl of C1-C9.
- 4. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, wherein  $R^2$  is aryl.
- 5. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, wherein R<sup>2</sup> is alkyl of C1-C9.
  - 6. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, wherein R<sup>3</sup> is alkyl of C1-C9.
  - 7. The aminothiol compounds and acylated derivatives thereof as claimed in claim  $\lambda$ , wherein  $R^4$  is alkyl of C1-C9.
  - 8. The aminothiol compounds and acylated derivatives thereof as claimed in claim, 1, wherein R<sup>5</sup> is H.
    - 9. The aminothiol compounds and acylated derivatives thereof as

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claimed in claim 1, wherein R5 is alkyl of C1-C6.

- 10. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, wherein  $R^6$  is H.
- 11. The aminothiol compounds and acylated derivatives thereof as
  5 claimed in claim 1, wherein R<sup>6</sup> is alkyl of C1-C6.
  - 12. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, wherein  $R^3$ ,  $R^4$  and N form a cycle.
  - 13. The aminothiol compounds and acylated derivatives thereof as claimed in claim 12, wherein R<sup>3</sup>, R<sup>4</sup> and N form a three-to-eight-membered heterocycle.
  - 14. The aminothiol compounds and acylated derivatives thereof as claimed in claim 12, wherein R<sup>3</sup>, R<sup>4</sup>, O and N form a ring by means of morpholine.
- 15. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, wherein R<sup>3</sup>, R<sup>4</sup>, O and N form a ring by means of morpholine.
  - 16. The aminothiol compounds and acylated derivatives thereof as claimed in claim 1, which are chiral ligands capable of reacting with organic metal compounds to form metal complexes and then react with carbonyl to produce alkylmetal in asymmetric addition reactions.
  - 17. The aminothiol compounds and acylated derivatives thereof as claimed in claim 16, wherein said carbonyl compound is aldehyde.
  - 18. The aminothiol compounds and acylated derivatives thereof as claimed in claim 16, wherein said carbonyl compound is ketone.
- 25 19. The aminothiol compounds and acylated derivatives thereof as

claimed in claim 16, wherein said organic metal is Zn, Cu, or Ti.

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